## (2) Hand-wipe cleaning

- (a) Each owner or operator of a new or existing affected hand-wipe cleaning operation covered by 10 CSR 10-5.295, shall use cleaning solvents that meet one of the following requirements:
  - 1. Meet (1) one of the composition requirements in 10 CSR 10-5.295.
  - 2. Have a composite vapor pressure of 45 mm Hg or less at 20° Celsius. (68° Fahrenheit)
  - 3. Demonstrate that the volume of hand-wipe cleaning solvents used in affected cleaning operations has been reduced by at least 60% from a baseline adjusted for production. The baseline shall be established as part of an approved alternative plan administered by the State.
- (b) The following cleaning operations are exempt from the requirements of (2) Hand-wipe cleaning:
  - 1. Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;
  - 2. Cleaning during the manufacture, assembly, installation, maintenance or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, hydrazine, etc.);
  - 3. Cleaning and surface activation prior to adhesive bonding;
  - 4. Cleaning of electronic parts and assemblies containing electronic parts;
  - 5. Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to air heat exchangers and hydraulic fluid systems;
  - 6. Cleaning of fuel cells, fuel tanks, and confined spaces;
  - 7. Surface cleaning of solar cells, coated optics, and thermal control surfaces;
  - 8. Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;
  - 9. Cleaning of metallic and non-metallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;
  - 10. Cleaning and cleaning solvent usage associated with research and development, quality control, and laboratory testing;
  - 11. Cleaning of aircraft transparencies, polycarbonate or glass substrates;
  - 12. Cleaning operations, using nonflammable liquids, conducted within five (5) feet of energized electrical systems. Energized electrical systems means AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and
  - 13. Cleaning operations identified as essential uses under the Montreal Protocol for which the Administrator has allocated essential use allowances or exemptions in 40 CFR 82.4.

(3) This rule is only applicable to actual manufacture and rework of production aerospace vehicles.

## Record Keeping:

- (1) For cleaning solvents subject to this rule, maintain:
  - (a) a list of materials with corresponding water contents for aqueous and semiaqueous hand-wipe cleaning solvents;
  - (b) a current list of cleaning solvents in use with their respective vapor pressure or, for blended solvents, VOC composite vapor pressure for all vapor pressure compliant hand-wipe cleaning solvents. This list shall include the monthly amount of each applicable solvent used; and
  - (c) a current list of exempt hand-wipe cleaning processes for all cleaning solvents with a vapor pressure greater than forty-five (45) mmHg used in exempt hand-wipe cleaning operations. This list shall include the monthly amount of each applicable solvent used.
- (2) Records of the random quarterly inspections will be maintained.

## Monitoring:

- (1) The permittee will perform random quarterly inspections on the housekeeping measures.
  - (a) If a deviation is observed, the area will be inspected again within the next five (5) working days.
  - (b) If a second deviation is observed, the area will be inspected again within the next five (5) working days. This is the third (3<sup>rd</sup>) successive inspection as referenced in the Emissions Limitations section.

## Reporting:

The permittee shall report to the St. Louis County Health Department Air Pollution Control Section at 111 S. Meramec Ave., Clayton, MO 63105 and the Missouri Department of Natural Resources Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, no later than thirty (30) days after the discovery that the VOC content limit set under Emission Limitations (2)(a) is exceeded.

